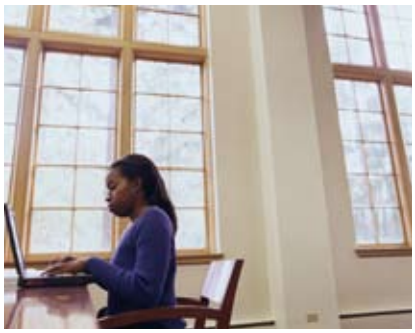
STATE OF DIGITAL CONTENT IN AMERICA'S CLASSROOMS, 2007-2008



A QED School Market Trends Report

QED
360° Education Marketing Solutions

SCHOLASTIC

State of Digital Content in America's Classrooms, 2007-2008

QED's School Market Trends Report

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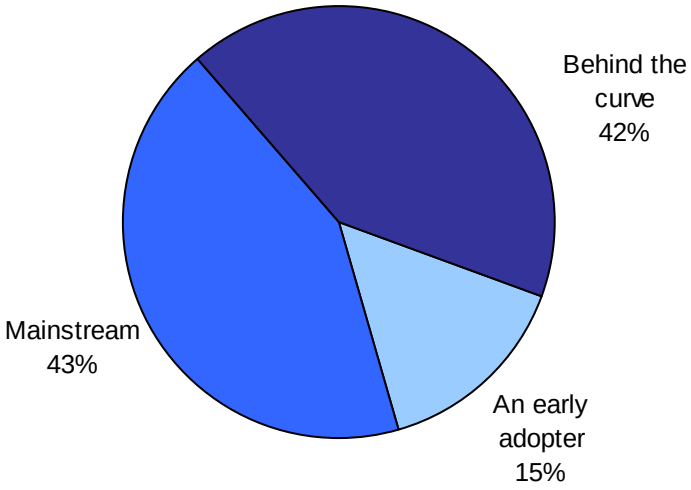
Technology Initiatives and Policies

Technology Adoption

Table Reference: Tables 35-36

n = 1,031



In the age of technology and world competition, it is the goal of schools to incorporate new, innovative technology in instruction. Only 15 percent of teachers say their school is an early adopter of instructional technology, while 42 percent report their school is behind the curve.

Teachers in schools in the West were significantly more likely to perceive their schools as behind the curve, compared to teachers in the South, Midwest and Northeast.

This may reflect teachers' frustration with access to technology within their own classrooms or schools. Reporting on the results from the 2005 Speak Up survey, NetDay/Project Tomorrow indicated that while time is the major obstacle teachers face in using technology at school, access follows at nearly the same rate of importance: teachers say they do not have enough computers (46%), that they lack time for planning (43%), that the computers they have don't work regularly (29%) and are concerned about slow or unreliable Internet access (25%).[1]

In CDW-G's Teachers Talk Tech 2006 survey, 55 percent of teachers reported that access to technology was the top obstacle they faced in fully integrating technology in the curriculum, followed by time constraints (48%).[2]

District administrators have a more optimistic view. QED queried districts about their technology adoption in National Technology Assessment, 2005-6. Just over one-quarter (26%) viewed their district as an early adopter, 61 percent as mainstream and 13 percent viewed their district as behind the curve.[3]

[1]Source: National Report on NetDay's 2005 Speak Up Event, Project Tomorrow, April 2006, p. 32

[2]Source: Teachers Talk Tech 2006, CDW-G, June 2006

[3]Source: National Technology Assessment, QED, 2005-6, p. 10

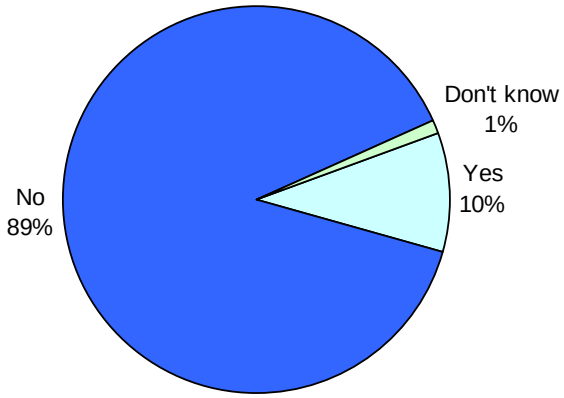
Technology Initiatives and Policies

One-to-one Computing Initiatives

Table Reference: Tables 17-18

One-to-one initiative in the school:

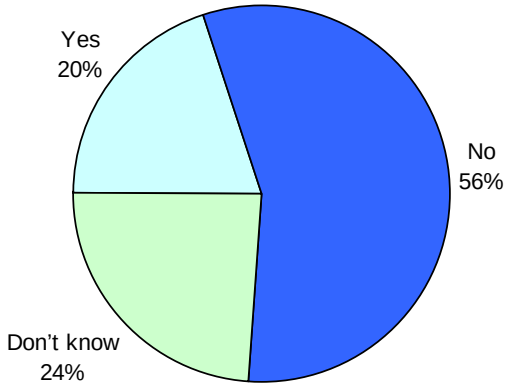
n = 1,031



One-to-one initiative in any school in the district:

Table Reference: Tables 29-30

n = 1,031



Several states have adopted one-to-one computing initiatives to enhance students' technology skills and education overall. Two in 10 teachers say there is a one-to-one computing initiative in their district, while 10 percent report a one-to-one initiative in their school specifically.

Elementary school teachers were significantly more likely to report a one-to-one initiative in any school in their district than high school teachers.

High schools are typically large buildings in which information may not be easily shared; teachers may not know about special initiatives going on in departments other than the one in which they work.

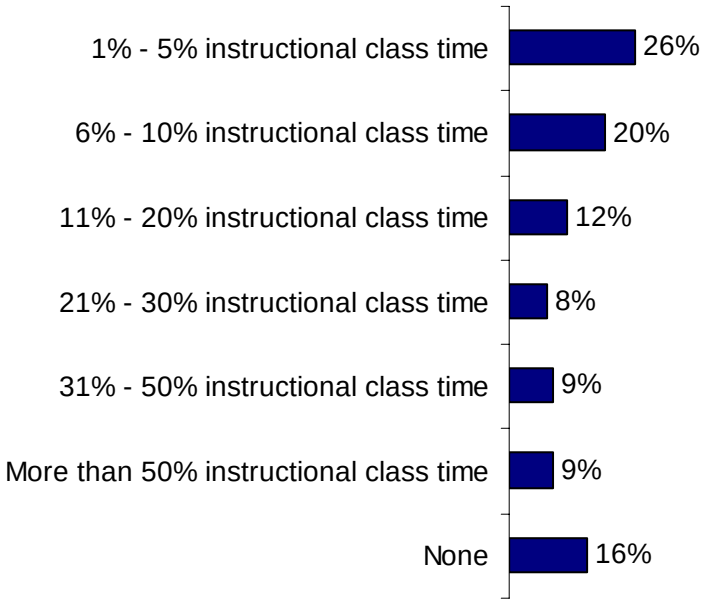
Districts with one-to-one initiatives were most often in place in fifth and sixth grades.

Use of Technology in Classroom Instruction

Instructional Class Time Spent Delivering Instruction with Technology

Table Reference: Tables 77-80

n = 1,031



Today, nearly one in five teachers say that they spend more than 30 percent of instructional class time using technology to deliver instruction. Technologies like LCD projectors and interactive whiteboards have made it easier for teachers to present digital content to the whole class and whiteboard software and student response devices allow students to be actively involved with the digital content. (See pages 14 and 16.)

Evidence is mounting that teachers are relying more on technology as a means of delivering instruction. In CDW-G's Teachers Talk Tech 2006 survey, one-third of teachers said that their students used computers daily for assignments and another third said that students used computers for assignments a couple of times a week. Those responses didn't actually quantify the amount of time that teachers spent delivering instruction with technology, but they did indicate that technology, and the computer specifically, was becoming an important classroom tool. [1]

Respondents to the National School Boards Association's survey conducted in conjunction with the T+L Conference were asked where they would invest any additional technology funding their districts might receive. Three out of four respondents said they would invest it in classroom instruction.

[1]Source: Teachers Talk Tech 2006, CDW-G, June 2006

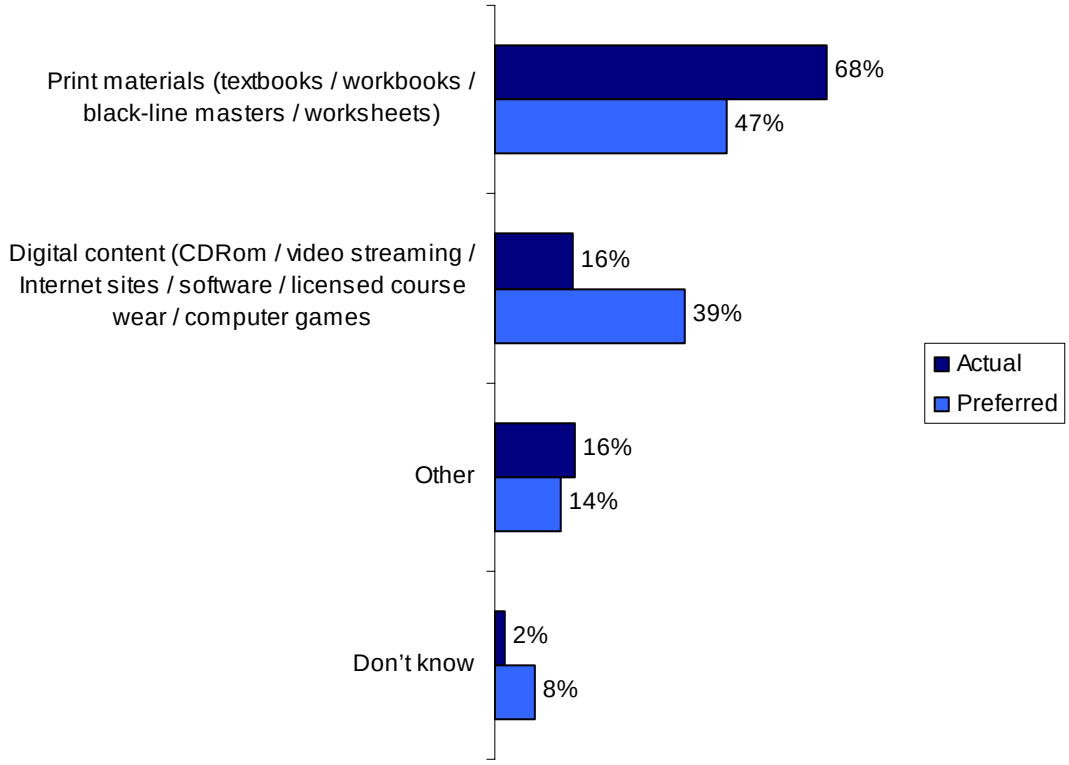
Use of Technology in Classroom Instruction

Print vs. Digital Formats for Instruction Delivery

n = 1,031

Table Reference: Tables 81-84

Average percent reported:



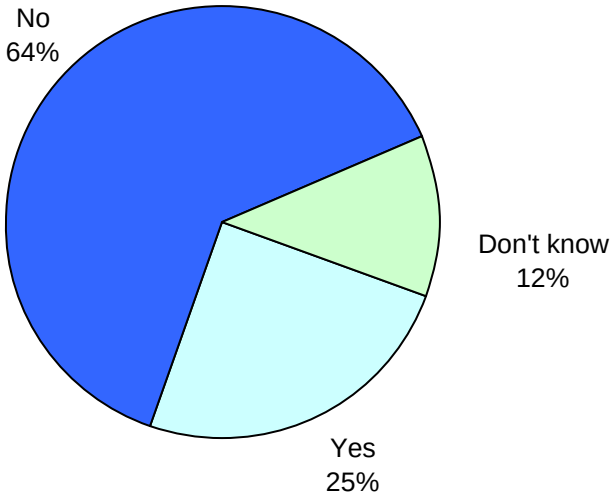
Teachers currently use print materials for an average of 68 percent of their classroom instruction, while using digital content for an average of 16 percent of instruction. However, given the choice, teachers prefer additional use of digital content and a decrease in use of print materials in their lessons.

Use of Technology in Classroom Instruction

Use of Digital Instructional Materials with Embedded Assessment

n = 1,031

Table Reference: Tables 123-124



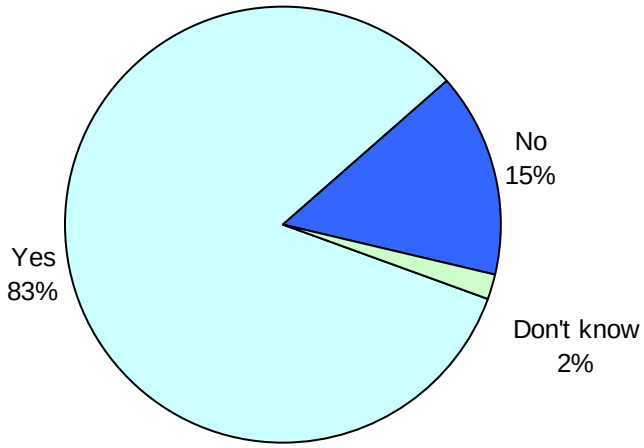
One-quarter of teachers use digital instructional materials with embedded assessment.

Use of Technology in Classroom Instruction

Use of Embedded Assessment to Differentiate Instruction

n = 254

Table Reference: Tables 125-126



Among teachers who use digital instructional materials with embedded assessment components, the majority differentiate their instruction for students based on the results of the embedded assessment information.

Use of Technology in Classroom Instruction

Use of Digital Teacher's Edition

Table Reference: Tables 205-206

n = 1,031

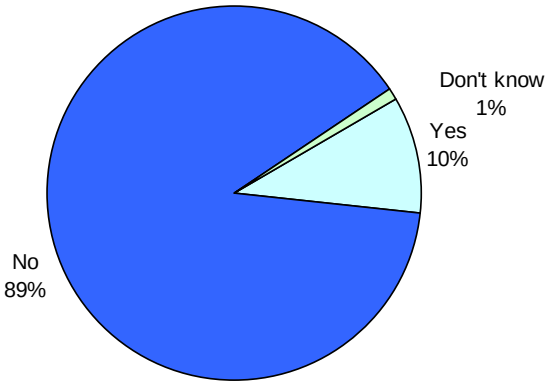
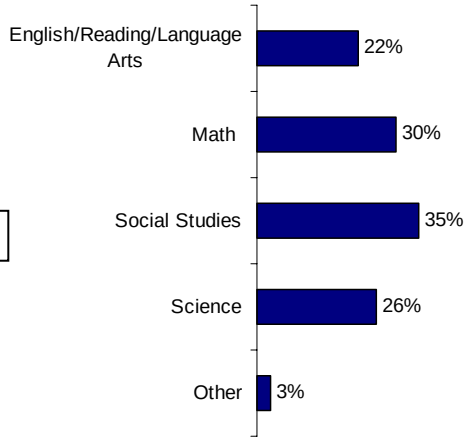


Table Reference: Tables 207-208

n = 107

Multiple responses allowed



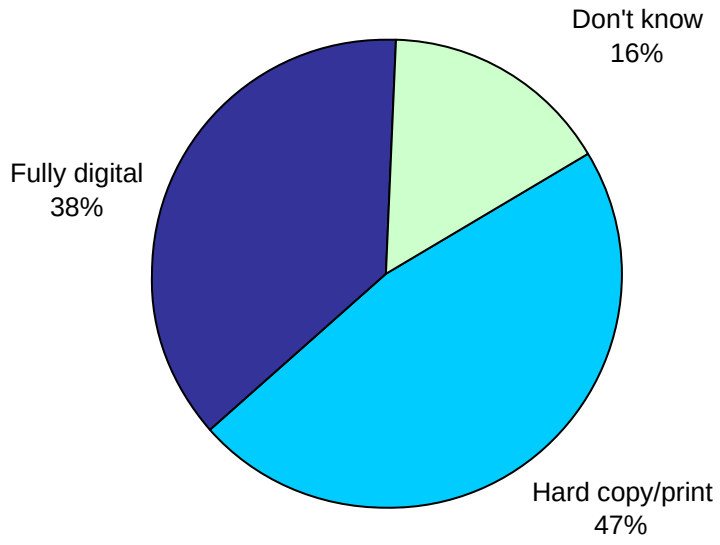
One in 10 teachers currently use a digital teacher's edition. Use of digital teacher's editions is more common among middle and high school teachers.

Use of Technology in Classroom Instruction

Preference for Hard Copy or Digital Teacher's Edition

Table Reference: Tables 195-196

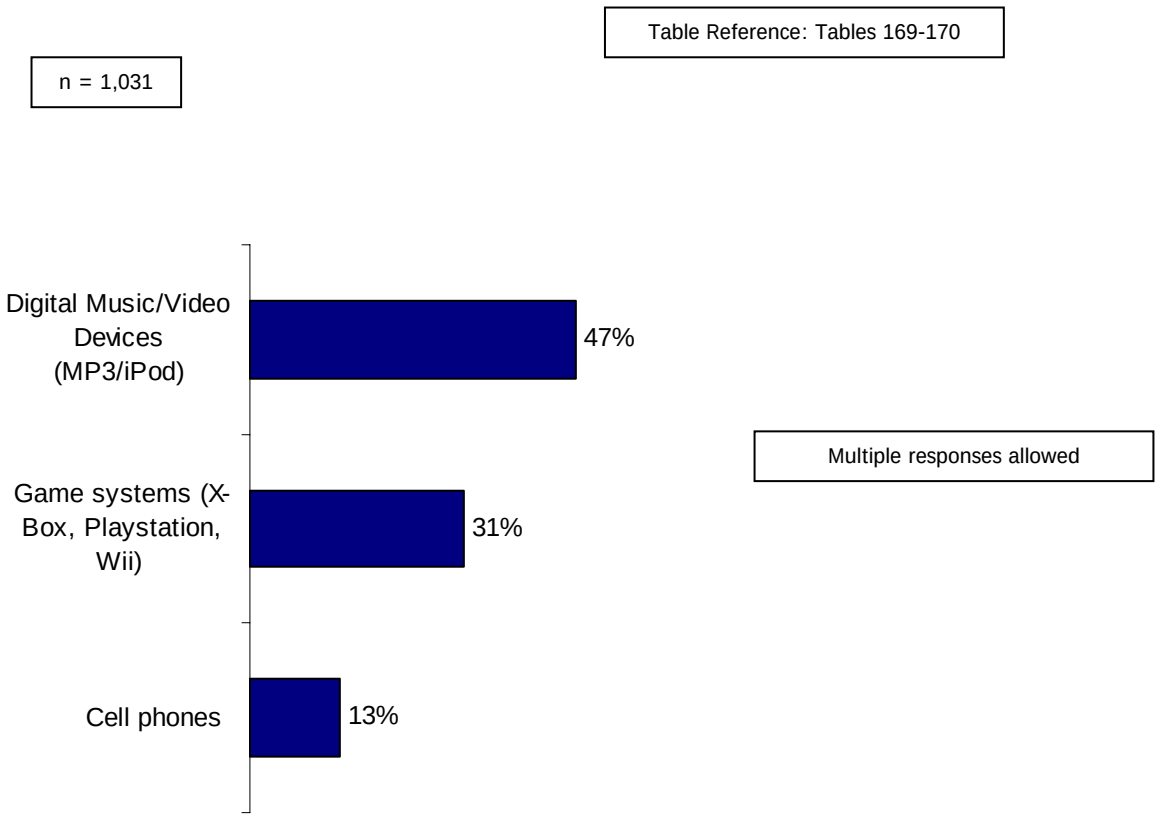
n = 1,031



Teachers split on their preference between hard copy and digital teacher's editions, with a slightly higher preference for print. Teachers who prefer print to digital say they don't want to rely on computers or Internet access, while teachers who prefer digital to print like the portability of digital and being free from taking home heavy books. Preference for a fully digital teacher's edition is higher for high school teachers compared to elementary teachers.

Student Classroom Activities Involving Technology

Future Content Delivery



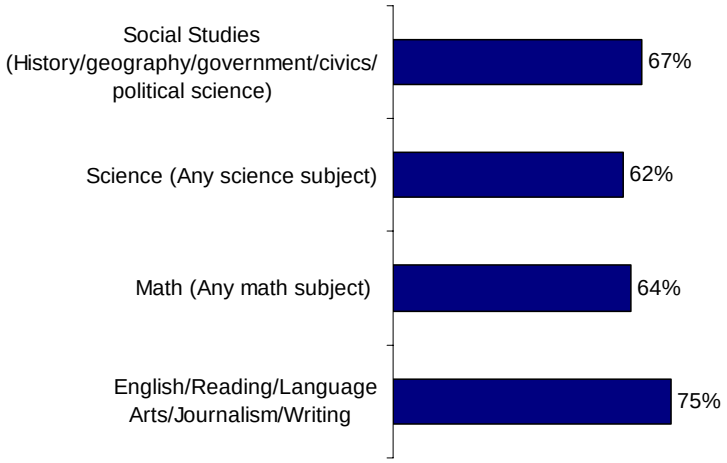
Teachers are open to delivering digital content through unconventional teaching devices. Nearly half of the teachers would consider delivering curriculum to their students via digital music/video devices such as an MP3 or iPod, under the condition that everyone had equal access to the device. Middle and high school teachers are more likely than elementary school teachers to consider delivering curriculum to students via cell phones and digital music/video devices.

Methodology

This study was conducted using Quality Education Data's Online Educator Panel. A random sample of invitations to participate in the survey were sent to panel members. Of those, 1,898 members responded to the invitation, with 1,031 respondents qualifying and participating by the study deadline. Data collection took place November 15 – December 3, 2007.

Subjects Taught

Table Reference: Tables 15-16

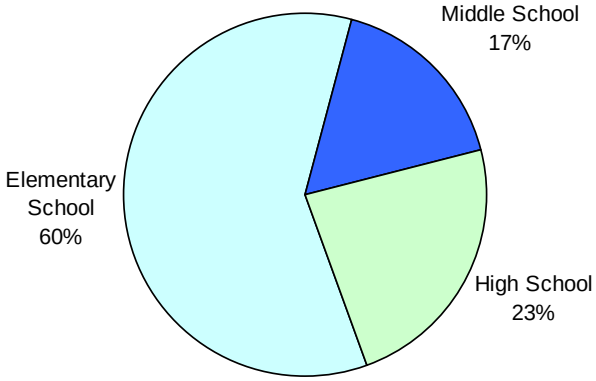


n = 1,031

Multiple responses allowed

Grade Level

Table Reference: Tables 9-14

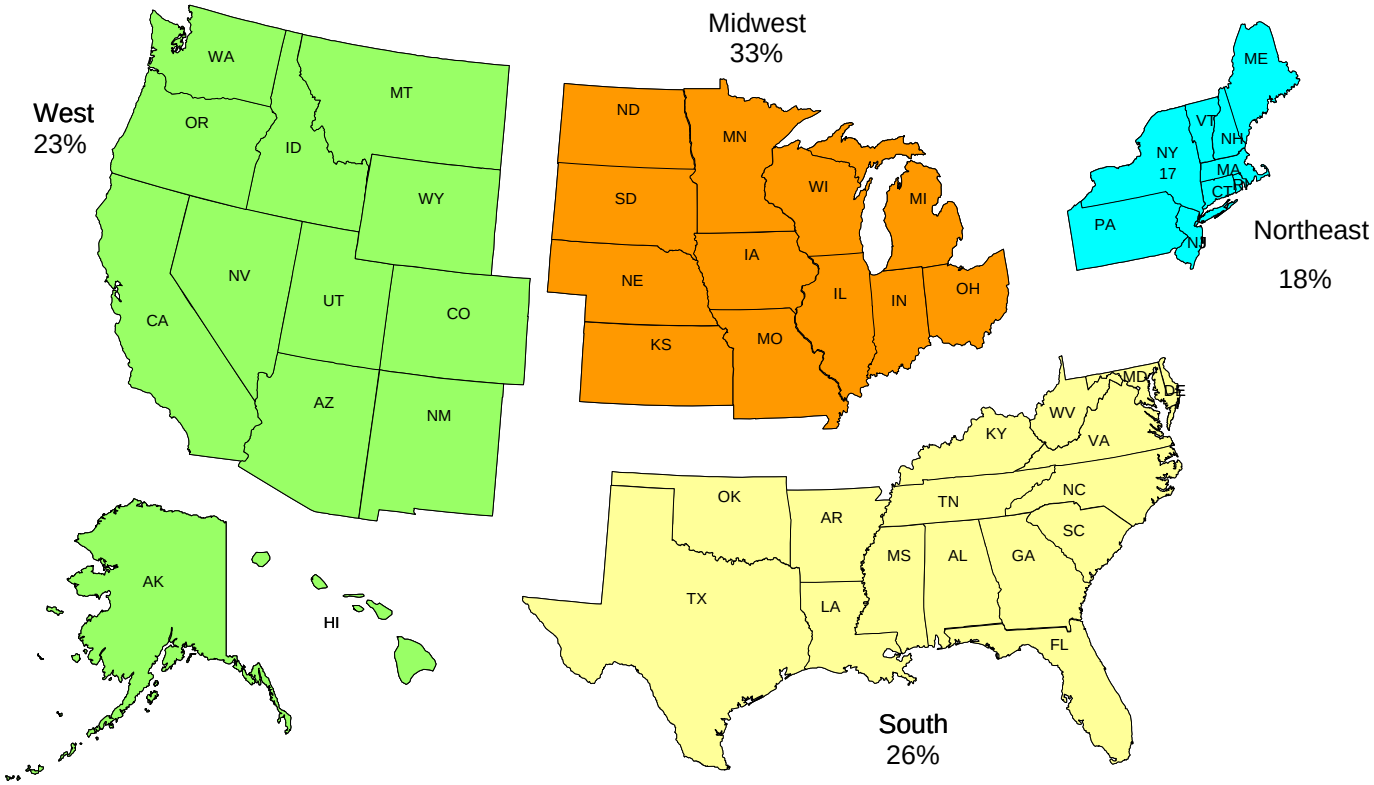


n = 1,031

Teachers had to teach one of the core subject areas in order to participate in the study. Respondents were quota controlled by school type to match the proportions in the universe of U.S. schools.

The sample consisted of the following:

Table Reference: Tables 5-6



n = 1,031

Metropolitan Status:

- ☐ 27% of schools in urban areas
- ☐ 50% of schools in suburban areas
- ☐ 23% of schools in rural areas

BIBLIOGRAPHY

CDW-G. Teachers Talk Tech. June 26, 2006. 28 p. Retrieved April 15, 2008, from http://newsroom.cdwg.com/features/TeachersTalkTech2006Results.pdf

CoSN. Understanding the "Third Wave" Challenge. Retrieved April 16, 2008, from http://www.superintendentempower.org/thirdwave.html

Editorial Projects in Education. Technology Counts 2008: STEM: The Push to Improve Science, Technology, Engineering, and Mathematics, 27. 30. March 2008.

Greenwood Henke, K., Project Tomorrow & Blackboard Inc. Learning in the 21st Century: A National Report on Online Learning 2007. 4. 12 p. Retrieved April 15, 2008, from http://www.blackboard.com/resources/k12/K-12_Learning_in_the_21st_Century.pdf

Maine Education Policy Research Institute, Silvernail, D. L. & Gritter, A. K. Maine's Middle School Laptop Program: Creating Better Writers. Gorham, Maine. 19 p. Retrieved April 15, 2008, from http://www.usm.maine.edu/cepare/Impact_on_Student_Writing_Brief.pdf

Picciano, A. G. & Seaman, J. (2007). *K-12 Online Learning A Survey of U.S. School District Administrators.* USA: Sloan Consortium. Retrieved April 15, 2008, from http://www.sloan-c.org/publications/survey/pdf/K-12_Online_Learning.pdf

Professional Learning Community. Retrieved April 15, 2008, from http://www.ncrel.org/sdrs/areas/issues/content/currclum/cu3lk22.htm

Project Tomorrow. National Report on NetDay's 2005 Speak Up Event April 2006. 32. Retrieved April 15, 2008, from http://www.tomorrow.org/speakup/pdfs/SpeakUpReport_05.pdf

Project Tomorrow. "21st Century Students Deserve a 21st Century Education." Speak Up 2007 for Students, Teachers, Parents & School Leaders. Project Tomorrow, April 8, 2008. 7 p. Retrieved April 21, 2008, from http://www.tomorrow.org/docs/National%20Findings%20Speak%20Up%202007.pdf

Quality Education Data. (2006). *National Technology Assessment* Denver, CO: Quality Education Data.

Setzer, J. C., and Lewis, L. (2005). *Distance Education Courses for Public Elementary and Secondary School Students: 2002–03* (NCES 2005–010). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Wilson, L. & Freedom To Learn. Freedom to Learn: Progress and Results of the Program Evaluation Michigan's One-to-One Teaching and Learning Initiative. February 2, 2007. 4 p. Retrieved April 15, 2008, from http://www.ftlwireless.org/upload_3/FTL%20Progress%20and%20Results%20Feb%2007%20final%20_2_.pdf

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